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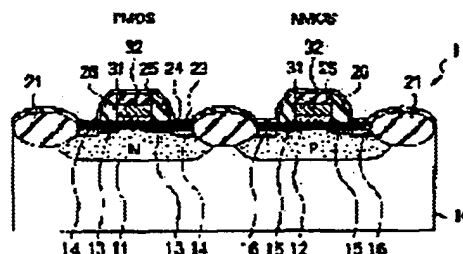
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(54) SEMICONDUCTOR DEVICE AND MANUFACTURE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To make it possible to compose an N-MOS and a P-MOS of single polarity gate electrode and surface channel type by providing a transistor having a germanium containing electrode formed on a gate insulating film.

SOLUTION: A transistor, having a semiconductor substrate 10, the gate insulating film 23 formed on the semiconductor substrate 10 and a germanium electrode layer 31 formed on the gate insulating film 23, is provided. For example, the gate insulating film is composed of the silicon oxide film 23 on the surface of the substrate 10 and a surface nitride film 24. A germanium electrode 31, where P-type impurities are introduced, a polycrystalline silicon layer 32 as the upper electrode, and an offset insulating film 25, consisting of silicon oxide, are stacked successively thereon. An insulative side wall 26 is formed on the side wall using silicon oxide.



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